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ABSTRACT

Two acculturation measures, Szapocznik's (1978) Behavioral Acculturation Scale and Dawson's (1971) Chinese Traditional-Modern Scale, were adapted and applied to two college-aged groups of first and second generation Chinese Americans and one group of Caucasian Americans. Hypotheses concerned the empirical and construct validity of both measures relative to the Chinese American population. Results of the study supported both hypotheses for the behavioral acculturation measure, but only confirmed the empirical validity of the value acculturation measure. Conditional acceptance of the construct validity of the value acculturation measure seemed warranted after some discussion of the complex nature of the value acculturation process and a review of other research done with this scale. The two acculturation measures, taken together, provide a two-dimensional approach to the assessment of acculturation among Chinese Americans and are capable of quantifying the intergenerational/acculturational conflicts which arise in Chinese-American families and allow for the rigorous assessment of the impact of such conflicts on the mental health of that population. (Author)

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Validation of Two Measures of Acculturation for Chinese Americans

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Running head: Chinese Acculturation

Abstract

Two acculturation measures, Szapocznik's (1978) Behavioral Acculturation Scale and Dawson's (1971) Chinese Traditional-Modern Scale, were adapted and applied to two college-aged groups of first and second generation Chinese Americans and one group of Caucasian Americans. Hypotheses concerned the empirical and construct validity of both measures relative to the Chinese American population. Results of the study supported both hypotheses for the behavioral acculturation measure, but only confirmed the empirical validity of the value acculturation measure. Conditional acceptance of the construct validity of the value acculturation measure seemed warranted after some discussion of the complex nature of the value acculturation process and a review of other research done with this scale.

The two acculturation measures, taken together, provide a two-dimensional approach to the assessment of acculturation among Chinese Americans and are capable of quantifying the intergenerational/acculturational conflicts which arise in Chinese American families and allow for the rigorous assessment of the impact of such conflicts on the mental health of that population.

Validation of Two Measures of Acculturation for Chinese Americans

The immigration of Asians and Pacific Islanders to the United States in the 1970's has been dramatic, with their increase in population exceeding that by every other ethnic group including persons of Spanish origin (Yu & Cypress, in press). According to the U. S. Department of Commerce (1981a,b), the total number of Asians and Pacific Islanders in the United States increased from 1.5 million in 1970 to 3.5 million in 1980. Among the various Asian groups comprising this number, the Chinese population emerged as the largest with 806,027, up from 435,062 in 1970 when they were ranked second. "If the present trend continues, an even greater increase in the Asian/Pacific American population is expected by the 1990's" (Yu & Cypress, in press). It is no wonder then that one of the recent trends in acculturation research has been the focus on ethnic groups immigrating to the United States, especially Asian Americans as well as Hispanics (Olmedo, 1979).

Broadly, the study of acculturation has encompassed a number of the social sciences and has been concerned with all "those phenomena which result when groups of individuals having different cultures come into continuous first hand contact with subsequent changes in the original pattern of either or both groups" (Redfield, Linton, & Herskovits, 1936, p. 140). Probably the largest research tradition in this literature has been concerned with the psychological consequents or antecedents of the acculturation process on immigrant groups, and in particular, with acculturative stress (Berry, 1980). "The belief that social and

cultural change always brings with it some emotional difficulties is widespread" (p. 2261). Increased personal disorganization, family disruption, behavioral disorders, and even mental illness among immigrant populations have been associated with the stress resulting from the acculturation process (Abramson, 1961; Al-Issa, 1970; Berry & Annis, 1974; Gordon, 1964; Mezey, 1960). Specifically, these problems have been associated with value conflicts among family members arising from intergenerational differences in acculturation, or more simply put, from parents and children acculturating at different rates and along a "continuum" which encompasses the wide variation that can exist in roles, attitudes, and values within and between two cultures. The possibilities for differences and conflicts are great as competing cultures are available, inviting, and even pressing. This has been seen to be particularly true among ethnic groups in the United States (Papajohn & Spiegel, 1975; Seward, 1964; Spiegel, 1960, 1971; Spiegel & Bell, 1959; Stein, 1973) and especially among the Asian (Barnett, 1957; Bourne, 1975; Chun-Hoon, 1971; Fong, 1968; Lee, D. C., 1977; Lee, R. H., 1960; Sung, 1971) and Hispanic (Derbyshire, 1968; Gonzalez-Reigosa & Del Castillo, 1978; King, Scopetta, & Szapocznik, Note 1; Madsen, 1964; Rendon, 1974; Scopetta & Alegre, 1976; Szapocznik & Kurtines, 1980; Trautman, 1961) populations.

Direct measurement of cultural differences between family members using a culture construct has not been generally performed, however (Papajohn & Spiegel, 1971). With the exception of the work by Papajohn and Spiegel, who studied Irish, Italian, and Greek Americans and Puerto Ricans, and by Szapocznik and his associates, who concentrated on Cuban

immigrants, the majority of the literature cited above has been based on either broad epidemiological studies or clinical observations, using generation as the criterion variable upon which to postulate differences. What has been lacking is "an adequate operational definition of acculturation in terms of a measure with such known and acceptable psychometric properties as validity, reliability, and normative standards" (Olmedo & Padilla, 1978, p. 180).

Olmedo (1979), in reviewing recent developments in the quantitative assessment of acculturation, concluded that acculturation is measurable, with a reasonable degree of reliability and validity, and that it is a multidimensional process. In particular, he noted two acculturational dimensions which have emerged from factor analytic studies. The major dimension to emerge is "one primarily defined by language proficiency, preference, and/or use. Closely related are items that reflect differential knowledge and behavior in other culture-specific domains such as tradition, customs, cultural identification, and preference" (p. 1068). The second dimension "appears to involve culture-specific attitudes and value orientations and . . . appears to reflect the extent to which individuals affiliate with their original culture and adhere to its traditional values, in particular with respect to family structure and roles" (p. 1069).

With this in mind, a number of new measures have been developed which should prove useful among Hispanic populations (Cuellar, Harris, & Jasso, 1980; Olmedo & Padilla, 1978; Padilla, 1980; Szapocznik, Scopetta, Kurtines, & Aranalde, 1978). The need persists however for a measure suitable and validated for Chinese Americans which will enable

cultural differences to be quantified and allow for more rigorous assessment of the magnitude of cultural conflicts and of their effects. Fortunately, two measures of acculturation, approximating the two dimensions delineated by Olmedo (1979), have been developed and show promise as just such measures for use with the Chinese American population in the United States.

The first measure, reflecting Olmedo's (1979) first major dimension, is the Behavioral Acculturation Scale (Szapocznik et al., 1978). This measure consists of 24 self-reported behaviors, each to be rated along a five-point, Likert-type scale as to the relative frequency with which the respondent engages in each behavior. The scale is anchored at each end by Cuban and American cultures. "The items are scored using unit weights and the person's total score consists of the simple sum of his/her response weights to each of the 24 items. Therefore, total scores . . . can range from 24 to 120, with a total score of 24 indicating minimum acculturation" (p. 120). Test-retest reliability, over two weeks, was reported as 0.96. Criterion-related validity, here measured as correlation with number of years in the United States, was reported as 0.61. Originally developed for use with Cuban American populations, Szapocznik and his associates concluded,

> the apparent generalizability of the behaviors tapped by the items suggest that the scale can be modified to make it appropriate for use within other immigrant groups. This modification can be achieved by deleting no more that five culturally inappropriate items and changing the anchors of the remaining items to correspond to the respective host and immigrant cultures. (1978, p. 129)

Following these recommendations, it appears the Behavioral Acculturation Scale can be adapted for use with Chinese Americans without substantially affecting the psychometric properties of the scale (Szapocznik et al., 1978, p. 120).

The second measure, reflecting Olmedo's (1979) second dimension, is the Chinese Traditional-Modern Scale (Dawson, Law, Leung, & Whitney, 1971). This measure consists of 30 concepts chosen as being representative of Chinese culture. Each of the 30 concepts is "defined by four attitude statements ranging from Traditional, Semi-Traditional, Semi-Modern, and Modern, making a total of 120 T-M scale items" (p. 9). Each of the 120 items, in turn, is rated along a five-point, Likert-type scale ranging from "Agree Strongly" to "Disagree Strongly", which in turn is scored from 5 to 1 respectively. Four major subscales (Traditional, Semi-Traditional, Semi-Modern, Modern) are derived by summing the scores of the respective attitude statements across the 30 concepts. Finally, "another score called the Range of Variation, or RV, is obtained by subtracting the Traditional Subscale total from the Modern. Where the Modern Subscale total is higher than the Traditional, the RV is positive, but where the Modern score is lower the RV is negative. A high positive RV indicates more modern attitudes and a low negative RV more traditional" (p. 12). Test-retest reliabilities, over six months, for the four major subscales and for the RV, both English and Chinese language versions, ranged generally from 0.79 to 0.89, with the exception of the Chinese version of the Modern Subscale, which had a reliability coefficient of 0.69. Significant relationships between educational achievement and socioeconomic status on the one hand and

more modern attitudes on the other, are reported, which is consistent with similar findings by Olmedo (1979) regarding socioeconomic status constituting a third "dimension" of acculturation.

This study attempted to validate these two measures empirically by comparing respective mean acculturation scores between groups of first (overseas-born) and second (American-born) generation Chinese Americans and a group of Caucasian Americans. The empirical validity of each of these two measures is supported if the mean scores for the Caucasian American group differ significantly and in the direction of greater acculturation from those of the first generation Chinese American group. The construct validity of each of these two measures is supported if the mean scores of the first and second generation and Caucasian American groups differ significantly from one another and are ascending in that order in the direction of greater acculturation.

Method

Subjects

Subjects were drawn from two predominantly Chinese and two predominantly Caucasian Protestant churches in and around the Los Angeles area. Of the 193 persons who completed the questionnaires, 116 subjects, between the ages of 18 and 22 years, were selected and divided among three groups. The first consisted of 40 first generation Chinese (23 males and 17 females with a mean age of 19.63 years), where first generation was defined as having been born overseas (e.g. Hong Kong, Taiwan, Mainland China) and having resided in the United States no more than 10 years. The second group consisted of 41 second generation Chinese (18 males and 23 females with a mean age of 19.61 years), where

second generation was defined as having been born and raised in the United States, and both of his or her parents born overseas. Finally, the third group consisted of 35 Caucasian Americans (15 males and 20 females with a mean age of 20.26 years), who were of at least third generation residence in the United States (i.e. subject and both of his or her parents born and raised in the United States).

Questionnaires

Questionnaire packets, consisting of the informed consent letter, background questionnaire, and both acculturation measures, the Behavioral Acculturation Scale and the Chinese Traditional-Modern Scale, were prepared in both English and Chinese language versions.

The Behavioral Acculturation Scale was modified according to the guidelines suggested by Szapocznik and his associates (1978). The maximum of five items were either deleted or simply not scored because of either their inappropriateness to Chinese culture or to the age group sampled. Content of the three items deleted dealt with what dances the respondents preferred and what sorts of gestures did they use when talking. A significant portion of the study sample indicated they had difficulty responding to two items relating to ways they related to fiancees and ways they preferred to celebrate weddings; these items were simply not scored. Anchors of the remaining items were changed to correspond to the American and Chinese cultures.

Procedure

Subjects were given oral as well as written descriptions of the study and the questionnaire packets and informed of the approximate time required to complete the questionnaires (30 minutes). The majority of

subjects completed the questionnaire packets at home, returning them the following week. Follow-up telephone calls were made near the end of each week to remind and encourage subjects to complete and return the questionnaires. Of approximately 205 questionnaires distributed, 193 (94%) were completed and returned.

First generation Chinese subjects were provided both Chinese and English language versions of the questionnaire packets, to insure their understanding the materials. Of 40 first generation Chinese subjects, only three completed the Chinese language version; the remainder of this group completed the English language versions. Subjects in the two other groups were provided and completed the English language version solely.

Results

Demographic Variables

Separate statistical analyses of between-group differences among the major demographic variables were performed. There are no significant differences between the first generation Chinese, second generation Chinese, and Caucasian American groups in terms of mean age, $F(2,113) = 2.78$, n.s., and sex ratio, $\chi^2(2) = 2.006$, n.s. Socioeconomic status (SES) was assessed using Hollingshead's two factor index of social position (1957, cited in Hollingshead & Redlich, 1958), with each subject assigned a SES rating from one (upper social class) to five (lower social class) based on the occupation and educational level of the head of his or her household (presumably a parent). Significant differences in mean social class (3.88, 3.15, and 2.06, respectively) were found between the three groups, $F(2,113) = 26.29$, $p < .0001$. The

first and second generation Chinese and Caucasian American groups were almost clearly separated into lower middle, middle, and upper middle social classes, respectively. Subsequent analyses of both the Behavioral Acculturation Scale and the Chinese Traditional-Modern Scale data were performed after covariate adjustment for SES was made.

Between-group differences for the Behavioral Acculturation Scale and the Chinese Traditional-Modern Scale were analyzed using Dunn's multiple comparison procedure (Kirk, 1968).

Behavioral Acculturation Scale

For the Behavioral Acculturation Scale (BA), the mean adjusted BA score for the Caucasian American group (86.99) is significantly greater in the direction of greater behavioral acculturation than that for either the first generation Chinese group (61.97), $t(60.3) = 14.70$, $p < .001$, or the second generation Chinese group (78.92), $t(68.9) = 5.56$, $p < .001$. The mean adjusted BA score for the second generation Chinese group (78.92) is also significantly greater in the direction of greater acculturation than that for the first generation Chinese group (61.97), $t(75.1) = 8.88$, $p < .001$.

Chinese Traditional-Modern Scale

For the Chinese Traditional-Modern Scale (RV), the mean adjusted RV score for the Caucasian American group (49.95) is significantly greater in the direction of greater value acculturation than that for either the first generation Chinese group (39.15), $t(73) = 3.36$, $p < .001$, or the second generation Chinese group (42.05), $t(72.9) = 2.62$, $p < .01$. No significant difference is found between the mean adjusted RV scores for the first and second generation Chinese groups, $t(77.5) = 0.92$, n.s.,

indicating there is no difference in the level of value acculturation between the two Chinese groups.

Discussion

The intent of this study was to establish the empirical and construct validity of the Behavioral Acculturation Scale and the Chinese Traditional-Modern Scale, as adapted and applied to a Chinese American population.

The results confirm both hypotheses concerning the empirical and construct validity of the Behavioral Acculturation Scale. The psychometric soundness and power which it demonstrated originally with Cuban immigrants (Szapocznik et al., 1978) is apparent with the Chinese American sample. The scale demonstrates the ability to provide quantitative discrimination between Chinese and Caucasian American samples, and quantitative differentiation across generations between the Chinese American samples.

The empirical validity of the Chinese Traditional-Modern Scale is also confirmed, establishing its ability to discriminate between Chinese and Caucasian American samples in a quantitative fashion. The results of this study fail, however, to confirm its construct validity. That no significant difference was found between mean scores for the first and second generation Chinese groups may be the result of several factors working together to produce "inflated" RV scores in the first generation Chinese group, and therefore causing the between-group difference to fall short of significance.

The clearly religious character of the sample is one possible source of acculturational inflation. Feagin and Fujitaki (1972) studied

differences in assimilation among Japanese Americans by generation (second and third) and by religion (Buddhist and Christian). Among second generation Japanese Americans, the Buddhist group was generally more traditional than the Christian group on both the behavioral and attitudinal levels. By the third generation, differences between the two religious groups were not very great at the attitudinal level, but at the behavioral level the Buddhist group was still somewhat less acculturated, more traditional than the Christian group. These results suggest that the religious (Christian) involvement of our first generation Chinese American sample, in particular, probably was a factor which was influential in producing among them a greater acculturation than might be found in a comparable sample which was not so religiously involved, particularly among first generation immigrants.

It was also noted earlier that the majority (37 out of 40) of subjects in the first generation Chinese group chose to complete the English language version of the questionnaire. The lack of individuals preferring to respond in Chinese suggests that more traditional orientations may have been underrepresented in the sample. The college student character of our sample and the likelihood that an unknown number of these subjects were on student visas, further invites this suggestion. Klein, Miller, and Alexander (1981), in a study comparing samples of Chinese university students in Taiwan, one preparing to come to the United States for graduate study versus one preparing to stay at home for further study, found that the "Go" group , in comparison with the "Stay" group, 1) saw themselves as having fewer Chinese characteristics and more American characteristics, and 2) were more identified

with American norms. Such a student sample, then, is not likely to represent a truly "traditional" population.

The rationale underlying the use of cross-generational comparisons to assure the construct validity of a measure assumes that "individual acculturation should be a direct function of amount of exposure to the host culture . . . for the particular subgroup to which the individual belongs (e.g. generational distance from time of immigration)" (Olmedo, 1979, p. 1068). It assumes further that first generation samples provide an approximation close enough to native populations , to warrant their use to anchor the traditional pole of the research paradigm, while being at the same time more practically and conveniently available. The results and discussion presented above, however, question the reliability of this assumption in the present case. The evidence points to the probable presence of influences serving to inflate the scores of the first generation group even prior to their immigration. It is questionable then that this college-aged Chinese sample represents fairly the more traditional orientations present within the general population of interest.

Dawson's (1971) original research using the Chinese Traditional-Modern Scale, however, provides further evidence in the direction needed to support the scale's potency to discriminate and differentiate between Chinese people. In samples of Chinese collected in Hong Kong, the RV scores tended to be lower and in the direction of being more traditional. Two comparable samples of Chinese university students in Hong Kong yielded mean RV scores of 32.5 and 35.4, compared to the mean RV score of 38.76 (unadjusted for SES) for the first generation sample

in our study. While statistical comparison is not possible, for lack of additional information, his results do suggest that the Chinese T-M Scale is able to represent quantitatively a wide range of Chinese cultural orientations with the possibility of statistical significance.

Our results with respect to the measure of value acculturation are consistent with conclusions reached by Szapocznik and his associates (1978), Olmedo (1979), and others, who indicate that the process of value acculturation is more complex than that of behavioral acculturation and less well understood. Two additional dynamics need also to be taken into account. First, the press of the developmental tasks of this particular age period - identifying a mate, deciding on a career, establishing a lifestyle - generates an impetus toward more individualistic (and therefore less traditional) orientations. Second, a reaffirmation process has been described which occurs for many somewhere near the midpoint as their personality, identity, and/or attitudes undergo transition. A point of crisis is reached and rather than continue in new directions, what transpires is either a return to the traditional or quasi-traditional, a reaffirming of traditional identities or a seeking after some synthesis of old and new cultural identities, and/or a rejection of new cultural attitudes or at least an integration of the old and new (Berry, 1980). The existence of such forces contradicts any expectation that acculturation proceeds in a simple, linear fashion and in a unidirectional manner, and does not justify, then, the naive assumption that individuals of later generations will be more acculturated.

The uncertainty with regard to the construct validity of the Chinese

Traditional-Modern Scale must be shouldered equally by the cross-generatinal research strategy which is used to validate or invalidate it. Olmedo (1979) has argued convincingly that the cross-generational research strategy "does not provide a satisfactory definition of the cultural variable. Generational typologies . . . remain arbitrary, and their relevance to psychological functioning is remote" (p. 1067). It is unfortunate that no clear superior alternative is available. Until such time, the lower RV scores obtained from different Chinese samples in and around Hong Kong, as presented by Dawson (1971), and the higher RV scores obtained in this study, would seem to demonstrate the ability of the Chinese Traditional-Modern Scale to measure and to represent quantitatively a wide enough range of cultural value orientations to allow for statistically significant quantitative differentiation. Conditional acceptance of its construct validity would appear to be warranted, therefore.

Taken together, then, the Chinese version of the Behavioral Acculturation Scale and the Chinese Traditional-Modern Scale provide a two-dimensional approach to the assessment of acculturation among Chinese Americans, approaching the multidimensional model advocated by Olmedo (1979). They demonstrate the capacity to provide the quantification of cultural differences and cultural conflicts needed to begin to understand their impact on the mental health of the Chinese American population.

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BETWEEN-GROUP DIFFERENCES[1]

Behavioral Acculturation Scale

		1st Gen Chinese (Mean= 61.97)	2nd Gen Chinese (Mean= 78.92)	American Control (Mean= 86.99)
Chinese T-M Scale	1st Gen Chinese (Mean= 39.15)	- - -